

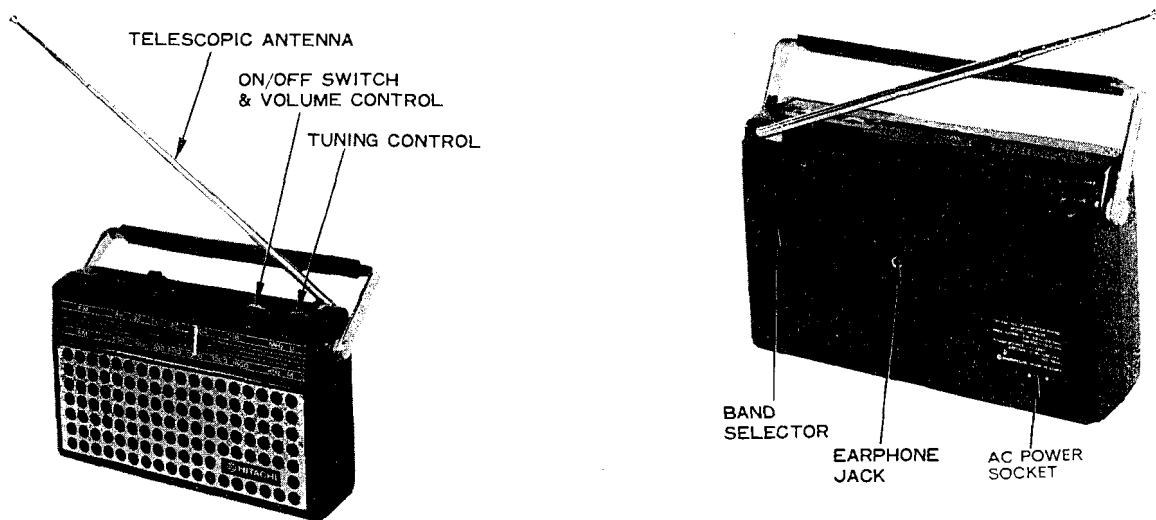


HITACHI

KH-832E

SERVICE MANUAL

NO. 771 77



SPECIFICATIONS

CIRCUIT SYSTEMFM/AM superheterodyne
TUNING RANGEFM: 88~108MHz
AM: 530~1605kHz
INTERMEDIATE FREQUENCY.....FM: 10.7MHz
AM: 465kHz
TRANSISTOR.....9
DIODE11
VARISTOR1
THERMISTOR.....1
POWER SUPPLYAC: 220-240V, 50Hz
DC: 6V (IEC R6×4)
CURRENT CONSUMPTION15mA (with no signal)

SPEAKER.....2 $\frac{5}{8}$ " (6.6cm) P.M., 8Ω
AUDIO OUTPUT350mW (Max.)
200mW (THD 10%)
SENSITIVITY.....FM: 10 dB (Max.), 15 dB (practical)
AM: 35 dB (Max.), 48 dB (practical)
ANTENNAFM: Telespic antenna
AM: Buile-in ferrite-core antenna
DIMENSIONS4 $\frac{1}{4}$ "(H)×7 $\frac{1}{16}$ "(W)×1 $\frac{5}{16}$ "(D)
WEIGHT1 lbs 6 oz
ACCESSORIESEarphone.....1
Power cord.....1

PORTABLE RADIO

July 1975

77

BLOCK DIAGRAM

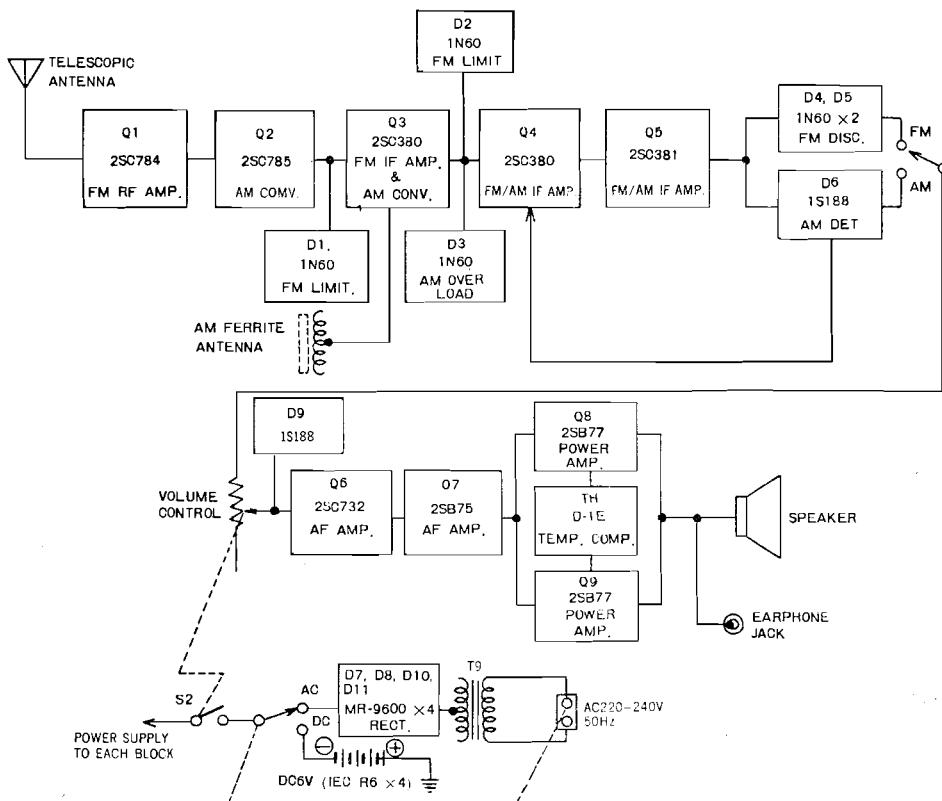
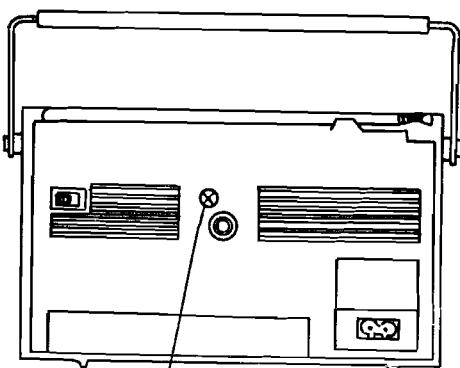


Fig. 1

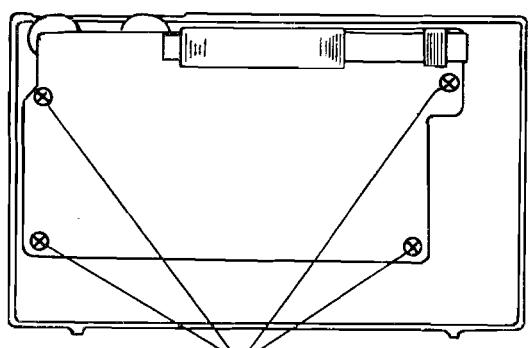
DISASSEMBLY

1. Removal of rear case



REMOVE SCREW

2. Removal of circuit board



REMOVE SCREWS

Fig. 2

Fig. 3

DIAL CORD STRINGING

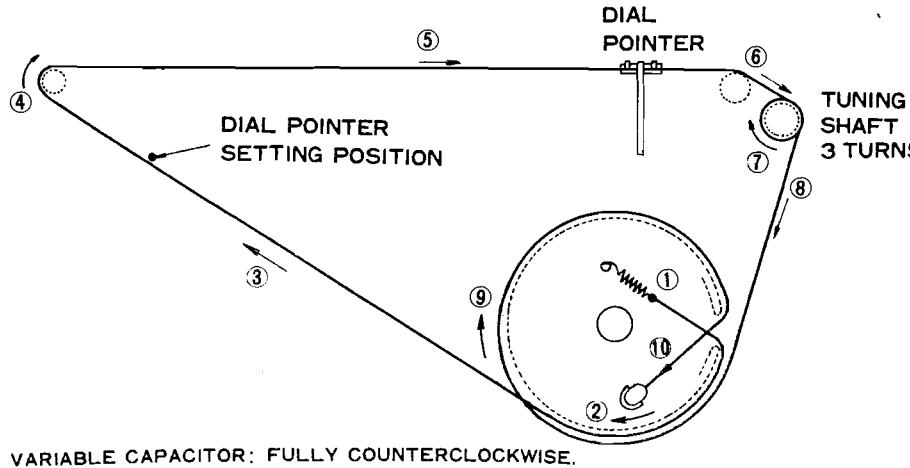
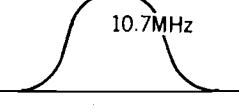


Fig. 4

CIRCUIT ADJUSTMENT

Step	Adjustment circuit	Connection	Signal or Sweep generator	Pointer position	Adjustment parts	How to adjust
FM CIRCUIT						
①	FM-IF	Sweep Generator...Connect output terminal to TP1. Oscilloscope Connect vertical terminal to TP2.	10.7±1MHz	High freq. end	T5, T4, T3, T2, T1	<p>① Turn core (T5) fully clockwise. ② Adjust core (T4, T3, T2, T1) to be this waveform.</p> 
②	FM-DISCR				T5	Adjust core (T5) for maximum output.
③	FM-RF	Covering Tracking Vacuum Tube Voltmeter Connect AC probe to TP2.	Signal Generator...Connect to telescopic antenna through a dummy antenna shown in Fig. 5.	87MHz (For Germany: 87.5MHz) 109MHz (For Germany: 108MHz) 90MHz 106MHz	Low freq. end High freq. end L4 CT2 L2 CT1	<p>TP1 → R4 → L2 → CT1 → CT2 → T1 → L4 → T2, T6 → T3, T7 → T4, T5 → T8 → TP2 → R28 → TP3</p> <p>Adjust core for maximum output.</p> <p>Adjust core for maximum output.</p>

Step	Adjustment circuit	Connection	Signal or sweep generator	Pointer position	Adjustment parts	How to adjust
AM CIRCUIT						
①	AM-IF		High freq. end Low freq. end	465kHz 515kHz	T8, T7, T6 L6	
②	AM-RF	Covering Tracking	Signal Generator...Connect output terminal to loop antenna. Vacuum Tube Voltmeter... Connect AC probe to TP3.	1,650kHz 600kHz 1,400kHz	CT3 L5 CT4	Adjust core for maximum output.
				600kHz 1,400kHz	600kHz 1,400kHz	

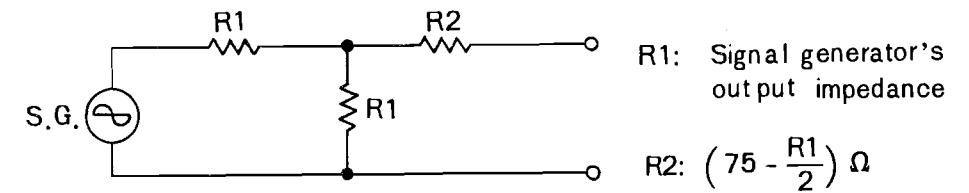


Fig. 5

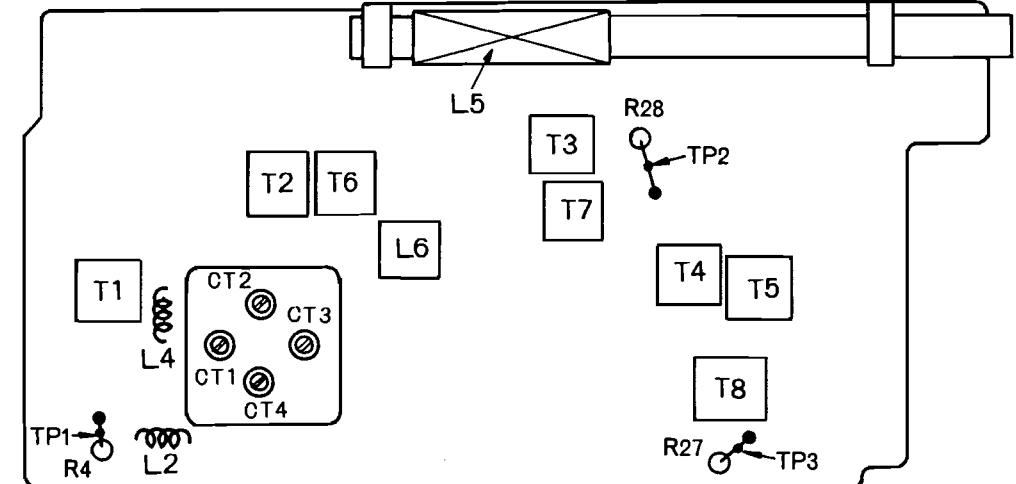
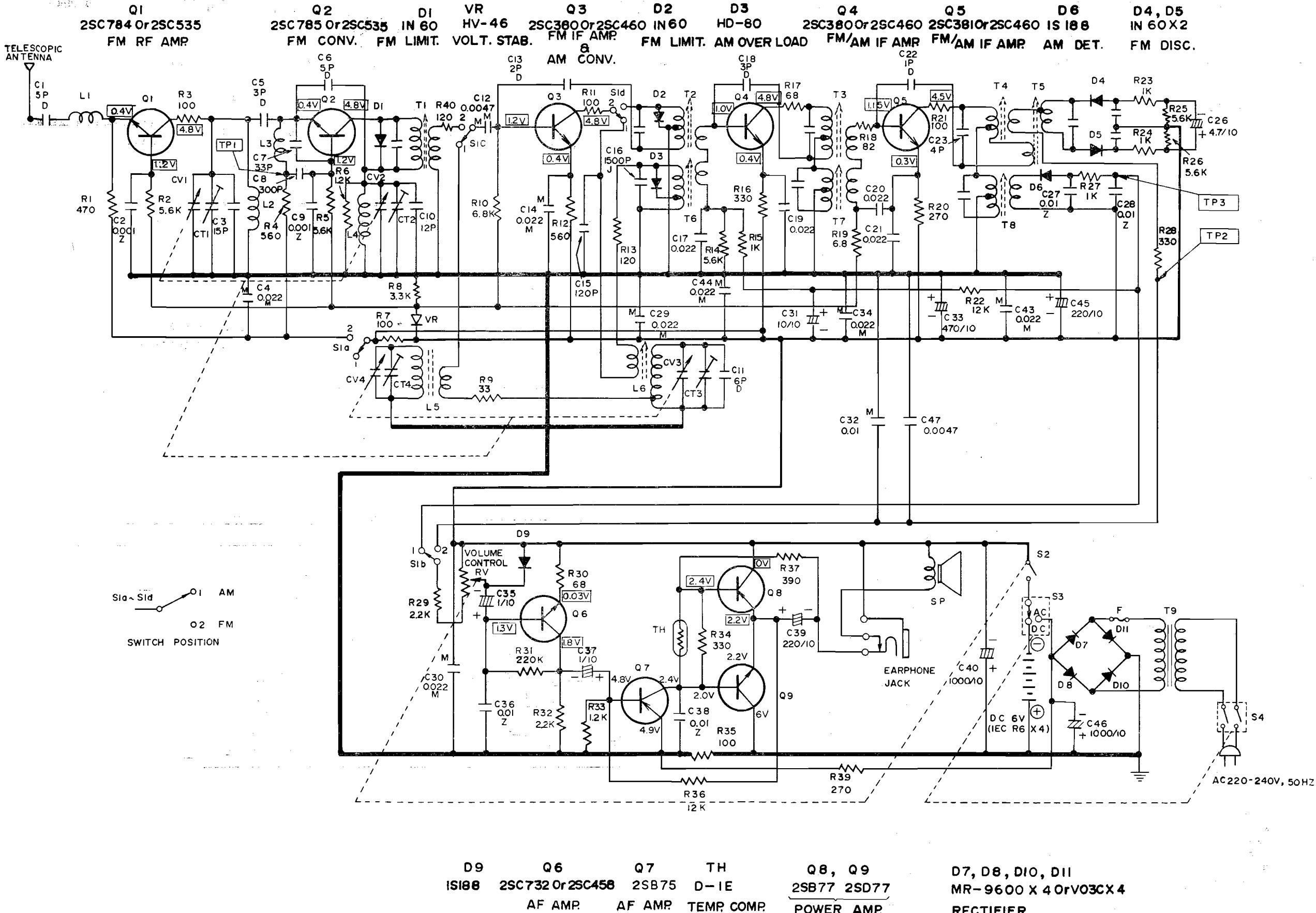


Fig. 6

SCHEMATIC DIAGRAM



NOTE

1. Voltage measured at base of chassis with minimum volume control and no signal.
2. Nomenclature of Resistors and Capacitors.

RESISTORS

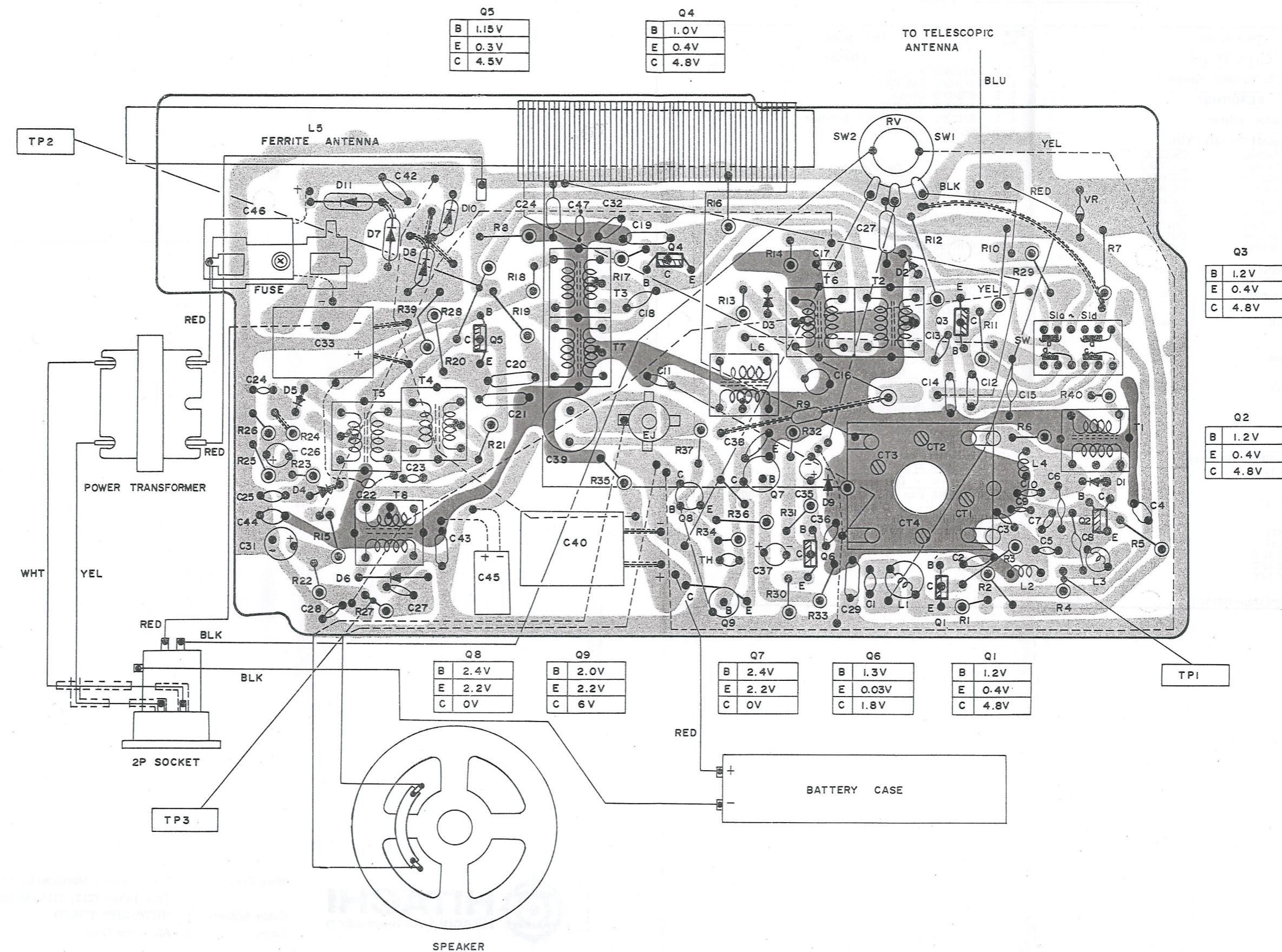
Value	No indicated : Ω K : 1000 Ω
Wattage	No indicated : $\frac{1}{4}$ W.
Tolerance	No indicated : $\pm 5\%$ K : $\pm 10\%$
Sort	No indicated : Carbon film RC : Composition RS : Metal oxide
Example	
R101.....Circuit No. 150.....Value RS • I • K.....Sort • Wattage • Tolerance	

CAPACITORS

Value	No indicated : μF P : μF
Voltage	No indicated : 50WV
Tolerance	No indicated : $\pm 10\%$ J : $\pm 5\%$ M : $\pm 20\%$ Z : $+80, -20\%$ D : $\pm 0.5 \mu F$ C : $\pm 0.25 \mu F$
Sort	Ceramic
Example	
C101.....Circuit No. 10/25.....Value/voltageSort	

3. Be sure to make your orders of resistors and capacitors with value, voltage, tolerance and sort.
4. When replacing capacitors marked with , Use specified ones stated on parts list since required temperature characteristics.

CIRCUIT BOARD DIAGRAM



REPLACEMENT PARTS

Symbol No.	Stock No.	Description	Symbol No.	Stock No.	Description
CAPACITORS:					
C V1~4	5052081	Plastic Variable capacitor	L 1	0324003	FM Antenna
C T1~4			L 2	5126381	FM RF
RESISTORS:					
R V	0151430	Variable resistor	L 3	0324003	Choke
SEMI-CONDUCTOR:					
Q 1	0573511	Transistor	L 4	0318526	FM OSC.
Q 2	0573511	Transistor	L 5	5112921	Ferrite-core Antenna
Q 3	0573487	Transistor	L 6	5220198	AM OSC.
Q 4	0573487	Transistor	for Final assembly		
Q 5	0573487	Transistor	6290181	Knob for tuning	
Q 6	5320064	Transistor	6290171	Knob for volume	
Q 7	0573117	Transistor	5731001	Earphone	
Q 8	5320295	Transistor	5743898	Power cord	
Q 9	5320305	Transistor	for Front case assembly		
V R	5340022	Varistor	6101091	Front case assembly	
T H	0576056	Thermistor	5411191	Speaker	
D 1)			for Rear case assembly		
D 2)	0575019	Diode	6101111	Rear case assembly	
D 3)			6331091	Handle	
D 4)	0575019	Diode	6726971	Handle ring	
D 5)			6325361	Handle spring	
D 6)	5330331	Diode	7534381	Handle shaft	
D 7)			6172021	Battery lid assembly	
D 8)	5330001	Diode	5750251	Telescopic antenna	
D 10)			for Chassis assembly		
D 11)			6342831	Pulley	
TRANSFORMER:			6342881	Pulley	
T 1	0329603	FM IFT	0711306	Panhead screw 2.6mm ø × 6mm for pulley mounting	
T 2)	0329602	FM IFT	6316232	Spring	
T 3)			6394111	Pointer	
T 4	0326026	Discri	6171111	Battery case	
T 5	0326028	Discri	5651043	2P socket	
T 6	0329501	AM IFT	for P.C.B assembly		
T 7	0322115	AM IFT	0721304	Pan head screw 2.6mm ø × 4mm for V.C mounting	
T 8	0322118	AM IFT	0532163	Slide switch	
T 9	5211821	Power transformer	0543217	Earphone jack	



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 Tel. Tokyo (212) 1111 (80 lines)
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 Codes : All Codes Used

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